

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
18 March 2004 (18.03.2004)

PCT

(10) International Publication Number
WO 2004/022077 A1

(51) International Patent Classification⁷: **A61K 35/00**,
48/00, C07K 5/00, 14/00, C12N 15/85, 15/86

Schulthesserstrasse 20, CH-3653 Oberhofen (CH). **MIS, Beatrice** [FR/CH]; Rue de Maupas 16, CH-1004 Lausanne (CH). **RINSCH, Christopher** [US/CH]; 32, avenue Victor Ruffy, CH-1012 Lausanne (CH).

(21) International Application Number:
PCT/US2003/027888

(74) Agent: **ELRIFI, Ivor, R.**; Mintz, Levin, Cohn, Ferris, Glovsky, and Popeo, P., C., One Financial Center, Boston, MA 02111 (US).

(22) International Filing Date:
5 September 2003 (05.09.2003)

(25) Filing Language: English

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(26) Publication Language: English

(30) Priority Data:
60/408,565 6 September 2002 (06.09.2002) US
10/324,257 19 December 2002 (19.12.2002) US

(63) Related by continuation (CON) or continuation-in-part (CIP) to earlier applications:
US 10/324,257 (CIP)
Filed on 19 December 2002 (19.12.2002)
US 60/408,565 (CIP)
Filed on 6 September 2002 (06.09.2002)

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (*for all designated States except US*): **ISOTIS S.A.** [CH/CH]; 18-20, avenue de S{velin, CH-1004 Lausanne (CH).

Published:
— with international search report
— with amended claims

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **ROLLAND, Eric** [FR/FR]; 395, chemin de Pain Loup, F-01220 Divonne les Bains (FR). **HUNZIKER, Thomas** [CH/CH];

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR TISSUE REGENERATION

(57) Abstract: The present invention provides the use and composition of matter of angiogenic or other growth/cytokine factors expressed by mixtures of allogeneic human cell strains or lines of various types and stages of differentiation. Also provided are unencapsulated preparations (mixed with or applied to extracellular matrix material or synthetic biocompatible substances) for the purpose of temporary application to wounds or defects in the skin or other tissues for the restoration of blood supplying connective tissue to enable organ-specific cells to reestablish organ integrity as well as to inhibit excessive scar formation.



WO 2004/022077 A1